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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,673	07/24/2001	Taro Endo	01430/LH	3874

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FRISHAUF, HOLTZ, GOODMAN & CHICK, PC
767 THIRD AVENUE
25TH FLOOR
NEW YORK, NY 10017-2023

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,673

Applicant(s)

ENDO ET AL.

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/24/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 7/24/2001 and 1/22/2002 which has been placed in the application file, the information referred to therein have been considered as to the merits.

Claim Objections

2. Claims 22 and 23 are objected to because of the following informalities: EDID at line 5 and line 11 should be read --Extended Display Identification Data--. Appropriate correction is required.

Drawings

3. The drawings are objected to because the word "CONTORL" at elements 101, 201, 208 of figures 1, 2; and elements 101, 201, 212 of figure 15 should be read --CONTROL--. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2674

5. Claims 1, 3, 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Rallison et al (US 5,991,085).

As to claims 1, 5, Rallison teaches a host apparatus 510, 503, a display apparatus 102, a video signal 502, power 504, a communication interface 506, 512, a storing power consumption data 501, 506, EEPROM 528; data and control signal 502 and power 504 are provided from the PC interface 506; the tracker circuitry 508 passes the signals through to and from the HMD 102; the computer 510 processes the power consumption data 504 (see figure 25A, column 19, lines 54-67).

As to claim 3, Rallison teaches the HMD 102 having a mode for operating the communication interface for communication with the host apparatus 510, 503 (figure 22, column 28, lines 10-19).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, 11 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rallison in view of Takeuchi et al (US 6,297,797).

As to claims 6, 14, Rallison teaches all of the claimed limitation of claim 5, except for on-screen display information means, and information superimposing means. However, Takeuchi et al teach a related display system which includes an information superimposing means, and the on-screen display information (see figure 14, column 12,

lines 51-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the information superimposing means, and the on-screen display information taught by Takeuchi et al to Rallison's display device because this would provide the additional information being displayed for the user to control and view.

As to claims 20, 21, Rallison et al teach a plurality of types of display apparatus HUD 102, monitor or television 515a (see figure 22).

8. **As to claim 7**, Rallison teaches a host apparatus 510, 503, a display apparatus 102, and a communication interface 506, 512. Rallison fails to teach the on-screen display information means, and information superimposing means. However, Takeuchi et al teach a related display system which includes an information superimposing means, and the on-screen display information (see figure 14, column 12, lines 51-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the information superimposing means, and the on-screen display information taught by Takeuchi et al to Rallison's display device because this would provide the additional information being displayed for the user to control and view.

As to claim 11, Rallison teaches the HMD 102 having a mode for operating the communication interface for communication with the host apparatus 510, 503 (figure 22, column 28, lines 10-19).

As to claim 15, Rallison teaches all of the claimed limitation of claim 7, except for on-screen display information means, and information superimposing means. However, Takeuchi et al teach a related display system which includes an information

Art Unit: 2674

superimposing means, and the on-screen display information (see figure 14, column 12, lines 51-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the information superimposing means, and the on-screen display information taught by Takeuchi et al to Rallison's display device because this would provide the additional information being displayed for the user to control and view.

As to claims 16, 17, Rallison teaches ASCII text data (column 28, lines 10-12).

As to claims 18, 19, Rallison teaches a plurality of types of host apparatus 510, 503, VCR, videodisk player, receiver, personal computer (see figure 25A).

9. Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rallison in view of McCuen (US 4,929,931).

As to claim 4, Rallison teaches all of the claimed limitation of claim 1, except for display apparatus comprises an alarm indicator lamp for alarm display. However, McCuen teaches a related display 32 which includes a plurality of alarm indicators 70, 72, 74, 76 (see figure 1, column 5, lines 12-15). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the display 32 which includes a plurality of alarm indicators 70, 72, 74, 76 taught by McCuen for Rallison's display because this would provide the additional alarm indicators for the user to control a power consumption.

10. Claims 2, 8-10, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rallison in view of Frederick et al (US 6,314,479).

As to claims 2, 8, 9, Rallison teaches all of the claimed limitation of claims 1, 5, 7, except for the communication interface having DDC1/DDC2B/DDC2AB prescribed by Video Electronics Standard Association "VESA". However, Frederick et al teach a universal interface which includes VESA display Power Management Signaling DPMS standard for PC control of the display's power state (see figures 1-4, column 5, lines 43-45). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the universal interface which includes VESA display Power Management Signaling DPMS standard for PC control of the display's power state taught by Frederick et al for Rallison's communication interface because this would allow both host apparatus and Consumer Electronics companies to develop products that are compatible, self configuring, work together as a single system, and are easy to use (see column 4, lines 25-28 of Frederick et al).

As to claim 10, Rallison teaches the HMD 102 having a mode for operating the communication interface for communication with the host apparatus 510, 503 (figure 22, column 28, lines 10-19).

11. **As to claim 22**, Rallison teaches a micro display apparatus 102, a host apparatus (510, 503), EEPROM 528, PROM 524 for storing monitor request voltage information 504 on the HUD 102; and a communication interface 506 for communicating with the host apparatus 510, and transmitting the monitor request voltage information 502 and 504 to the host apparatus 510 (see figure 25A, column 19, lines 54-67).

Rallison fails to teach monitor current consumption information as specific EDID information on the micro display apparatus; and communication interface means for

Art Unit: 2674

communicating and transmitting EDID to host apparatus. However, Frederick et al teach a display signal interfaces and connectors 35 including EDID 50 support to identify display (figure 6, column 7, lines 21-30). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the universal interface which includes display signal interfaces and connectors including EDID support to identify display taught by Frederick et al for Rallison's communication interface because this would allow both host apparatus and Consumer Electronics companies to develop products that are compatible, self configuring, work together as a single system, and are easy to use (see column 4, lines 25-28 of Frederick et al).

As to claim 23, Rallison teaches a host apparatus 503, 510, a head up display 102, the interfaces 512, 506; the HUD 102 includes microprocessor 522, power, EEPROM 528, PROM 524 (detecting means) for detecting a power voltage 504 and power current consumption.

Rallison fails to teach the host apparatus comprising control means for controlling an output voltage of the host apparatus based on the EDID information which is stored in the memory means of the micro display apparatus. However, Frederick et al teach a host computer 14 comprising control means for controlling an output voltage of the host apparatus 14 based on the EDID information 50 which is stored in the memory means of the micro display apparatus (figure 6, column 7, lines 21-30). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize host computer 14 comprising control means for controlling an output voltage of the host apparatus 14 based on the EDID information 50 which is stored in the memory means

of the micro display apparatus taught by Frederick et al for Rallison's communication interface because this would allow both host apparatus and Consumer Electronics companies to develop products that are compatible, self configuring, work together as a single system, and are easy to use (see column 4, lines 25-28 of Frederick et al).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Application/Control Number: 09/911,673

Page 9

Art Unit: 2674

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
August 19, 2003



RICHARD WIERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600